Gulf of Mexico Harmful Algal Bloom Bulletin

19 March 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: March 15, 2007

Conditions Report

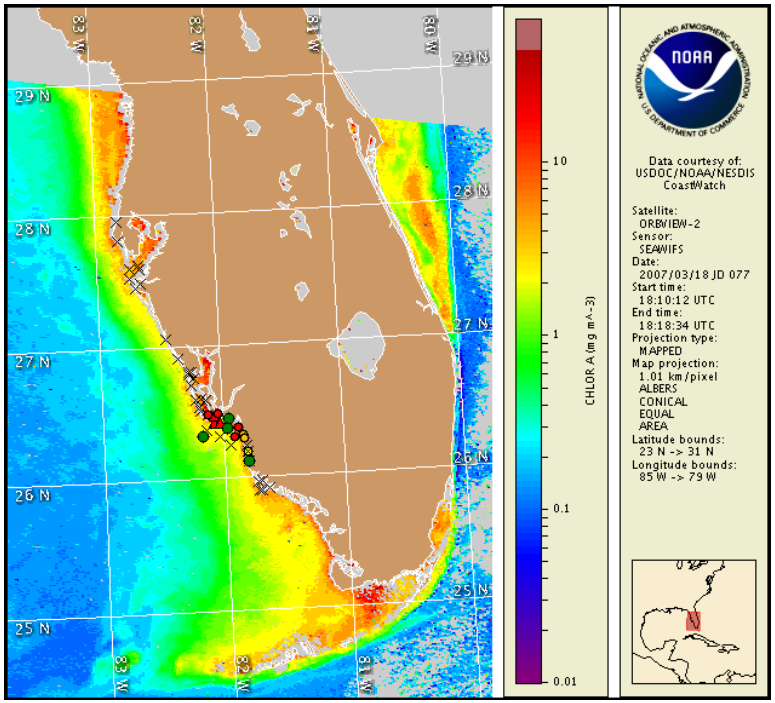
A harmful algal bloom has been identified in patches from southern Lee to northern Collier Counties and in the Lower Florida Keys of Monroe County. In southern Lee County, patchy moderate impacts are possible today through Thursday. In northern Collier County, no impacts are expected today through Thursday. In the Lower Florida Keys, no impacts are expected today through Thursday.

Analysis

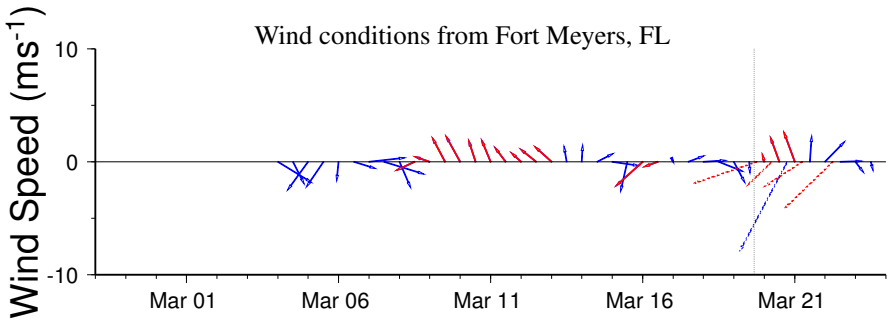
The harmful algal bloom persists from southern Lee to northern Collier Counties and in the western portion of the Lower Florida Keys. Satellite imagery indicates the persistance of a slightly elevated chlorophyll patch (generally <3 μg/L) up to 9 miles south to southeast of Sanibel Island and alongshore (up to 7 μg/L) from Fort Myers to approximately Barefoot Beach. Chlorophyll levels appear to be <3 μg/L alongshore and decrease offshore of northern Collier County. Continued sampling is recommended. In addition, two samples noted offshore of Lighthouse Beach and Ft. Myers indicate subsurface concentrations (Low b and Medium; 3/14 FWRI). Reports of dead fish have been received in the Fort Myers area. Recent samples identified "very low b" concentrations of *Karenia brevis* in northern Collier County with offshore concentrations ranging from not present to "very low a" (FWRI; 3/16). Westerly transport of the bloom through Thursday is possible. Forecasted winds are favorable for upwelling and may intensify bloom.

The harmful algal bloom persists in the Lower Florida Keys in Monroe County. Patches of elevated chlorophyll level persist and have decreased in overall concentration (generally <5 μg/L) and the maximum chlorophyll levels (~6 μg/L) are found around 24°36'28"N 81°55'5"W, very close to elevated chlorophyll patch noted in last bulletin. Continued sampling in the western end of the Lower Keys is recommended. Strong winds through Thursday favor westward transport.

~Fenstermacher, Urizar



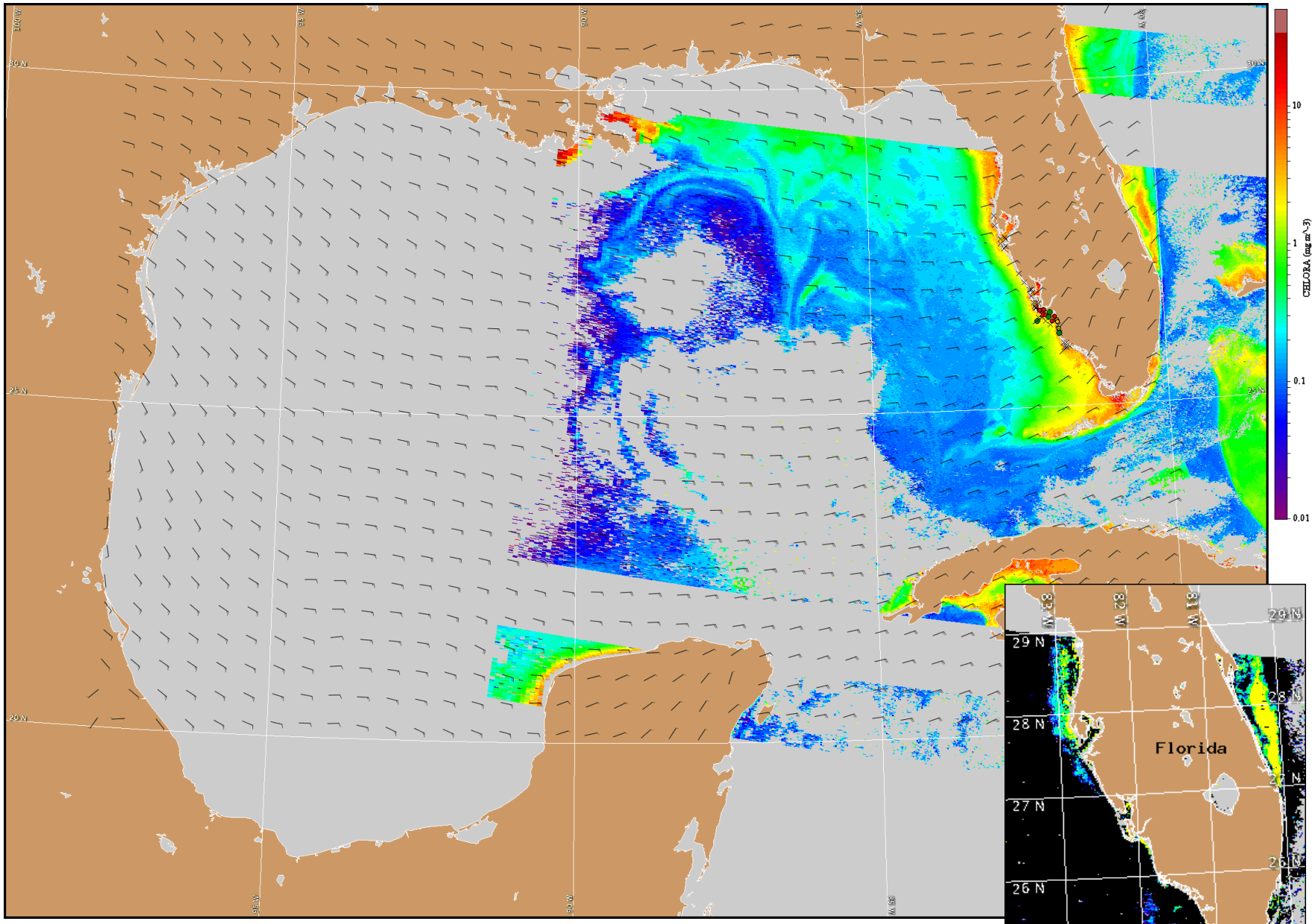
Satellite chlorophyll image with possible HAB areas shown by red polygon(s).Cell concentration sampling data from March 9-15 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the the HABFS bulletin guide: http://www.csc.noaa/gov/crs/habf/habfs_bulletin_guide.pdf



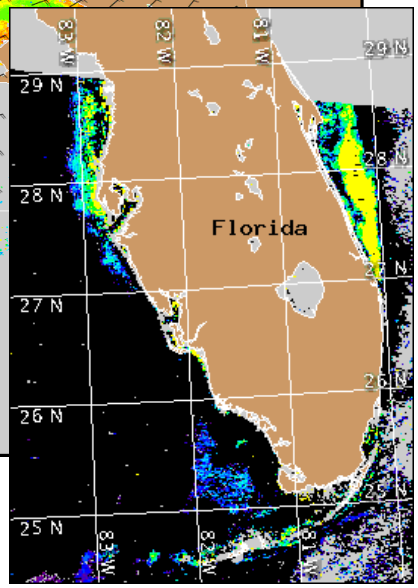
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: Easterlies today followed by east to northeasterlies on Tuesday (10-15 knts; 5-8 m/s), which strengthen on Wednesday and Thursday (15-20 knts; 8-10 m/s).

Keys: Strong northeast to easterlies today and Tuesday (15-20 knts; 8-10 m/s) followed by strong easterlies Tuesday night through Thursday (20 knts; 10 m/s).



Satellite chlorophyll image and forecast winds for March 20, 2007 12Z with cell concentration sampling data from March 9-15 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the the HABFS bulletin guide: http://www.csc.noaa/gov/crs/habf/habfs_bulletin_guide.pdf



Verifi ed HAB areas shown in red. Other bloom areas shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Sand Key, FL